Conclusions: Our study highlights pertinent factors for discussion in the surgical consent process. Formal training remains infrequent.

0279: INCIDENCE OF UNDIAGNOSED AND UNDERTREATED HYPERTENSION IN ELECTIVE VASCULAR PATIENTS

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Introduction: Hypertension is a common and potentially modifiable cardiovascular risk factor. For patients with increased risk, NICE recommends a target systolic pressure of 135mmHg. We performed an audit to investigate the incidence of undiagnosed and undertreated hypertension amongst elective vascular patients.

Methods: All patients who underwent elective arterial operations with pre-operative assessments between November 2010 and November 2011 were included. Hypertension was defined as a systolic blood pressure >135mmHg in both pre-operative assessment and inpatient observation prior to their operations.

Results: 98 patients were identified with a median age of 74(40-90) and BMI of 26.5(16.8-39.5). 27.5% of patients were diabetic, and 57% current/ex-smokers. 30% had a history of IHD, 37% CVA/TIA. 61 patients were on treatment for hypertension, of which 33 remained hypertensive i.e. undertreated hypertension. 24 patients were shown to be hypertensive whilst not on any hypertensive treatment i.e. undiagnosed hypertension.

Conclusions: In this retrospective study we found that over half (54%) of our elective vascular patients who were on antihypertensive medications were inadequately treated, and 24% of patients who were shown to be hypertensive were not diagnosed in the community. This highlights the need for improving the monitoring and management of hypertension in the community, particularly in vascular patients.

0302: THE INCIDENCE OF HYPOMAGNESAEMIA FOLLOWING ABDOMINAL AORTIC ANEURYSM (AAA) SURGERY

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Introduction: Post-operative hypomagnesaemia is a known phenomenon in cardiac surgery. No studies have investigated the incidence of post-operative hypomagnesaemia after AAA surgery.

Methods: Retrospective analysis of patients who underwent elective AAA repair at a vascular centre. Patients were subdivided into open repair(OR) and endovascular repair(EVAR). Online pathology system was used to identify the first post-operative serum magnesium.

Results: Total of 211 patients studied. 101 patients underwent OR[age range 51-86(mean 71)]. 110 underwent EVARs[age range 62-92(mean 76)]. 73(73%) patients in the OR group and 35(32%) patients in the EVAR group were hypomagnesaemic. Median length of stay was the same for hypomagnesaemic and normomagnesaemic patients in both groups: OR 9 days, EVAR 4 days. All 3 mortalities in the open group had hypomagnesaemia. No deaths reported in the EVAR group. A T-test analysis showed a statistically significant difference in hypomagnesaemia between the two groups ($p<0.001$).

Conclusions: We hypothesize that AAA repair surgery is associated with a high incidence of post-operative hypomagnesaemia. Our results demonstrate a significant difference in post-operative levels between open and EVAR groups, which may result in more cardiac complications in the OR subgroup. A prospective study is proposed to further investigate this and its potential implications on AAA surgery.

0332: DOES OPERATING OUTSIDE THE INSTRUCTION FOR USE AFFECT OUTCOME IN ELECTIVE AND RUPTURED ENDOVASCULAR AORTIC ANEURYSM REPAIR?

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Introduction: The long-term durability of endovascular repair of AAA remains a major concern. The aim of this study is to compare the mid-term re-intervention rates and compliance to the manufacturer's instruction for use (IFU) between elective (EVAR) and ruptured (REVAR) endovascular repair of AAA at our institution.

Methods: Retrospective analysis of EVAR and REVAR performed between January 2007 and July 2011. Patient demographics, anatomical parameters, compliance to manufacturer's IFU, complication and re-intervention rates were compared.

Results: 219 patients (196 male, age 75±6.8) and 50 patients (42 male, age 77±7) underwent EVAR and REVAR respectively. The median follow-up were 26.2 (IQR 16.7-45.4) and 15 (IQR 1.6-24) months. The 30-day mortality was 0.5% and 20% respectively. During follow-up, type 1 endoleak occurred in 7.3% (13 early and 3 late, 56% treated outside manufacturer's IFU) and 14% (3 early and 4 late, 50% treated outside manufacturer's IFU) in the EVAR and REVAR groups (P=0.2). Operating outside IFU did not affect re-intervention rates (11% within vs 14% outside IFU, P=0.6), neither did indication (13% in EVAR vs 10% in REVAR, P=0.8).

Conclusions: The mid-term re-intervention rates are comparable in both EVAR and REVAR. Operating outside manufacturer's IFU did not affect re-intervention rate.

0343: LAPAROSCOPIC ABDOMINAL AORTIC ANEURYSM (AAA) REPAIR: CONDUCTING THE LEARNING CURVE SAFELY IN THE UK

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Introduction: To describe a single centre experience of total laparoscopic(TL) and laparoscopic-assisted(LA) AAA repair in patients in whom endovascular surgery was inappropriate.

Methods: All patients having TL and LA procedures since commencement of the laparoscopic aortic programme were included. Patients were divided into 3 groups by chronological order of operation (T1 (n=17), T2 (n=17), T3 (n=17)).

Results: 51 Patients (94.1% male, median age 72[66-75]years) underwent laparoscopic AAA surgery over the study period (6TL, 43LA, 2Patients were converted to open). LA procedures were quicker than TL (325[270-383] vs. 450[375-660]minutes, p=0.016). Incisions used included: transverse (8.5%), midline (10.6%), paramedian(55.3%). Laparoscopic approaches included: retrocolic (9.8%), visceral rotation (33.3%), anterior approach(56.9%); All of T3 had paramedian incisions and used the anterior approach. T1 received more epidural analgesia than T2 and T3 ($p<0.0001$). No differences were found in post-operative pain at days 1, 3, 5 and 7. T2 and T3 started drinking (p=0.01) and mobilising (p=0.001) sooner than T1. T3 were discharged from hospital sooner than T1 (3.5[3-6] vs. 7[5.5-9] days, p=0.0052) and had a trend towards fewer complications than T2 (p=0.085).

Conclusions: LA and TL techniques have been carried out safely over the course of the learning curve and patients required less post-operative analgesia, mobilised sooner and were discharged from hospital sooner.

0347: REVIEWING THE MAXIMUM SURGICAL BLOOD ORDER SCHEDULE FOR ELECTIVE AND COMPLEX EVAR

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Introduction: Patients undergoing EndoVascular Aneurysm Repair (EVAR) are routinely cross-matched 4 units of blood. This is overcautious in elective EVAR but necessary in complex cases (fenestrated, chimney or branched). Operations can be considered for group and save only if they have a cross match to transfusion ratio (CTR) of greater than 3.

Methods: Patients undergoing any non-emergency aneurysm repair between August 2009-2012 were included. Number of units cross-matched and transfused were the primary measures of interest. Pre- and post-operative haemoglobin and volume of cell salvage were also analysed.

Results: 178 elective aneurysm repairs were included. CTR of OR, elective EVAR and complex EVAR were 3.05, 4.99 and 1.76 respectively. Almost 70% of elective EVARs did not receive a transfusion during their admission, compared to less than 40% of open repairs and 30% of complex EVARs. The rate of transfusion of complex EVARs (M=0.47 SD=0.40 N=23) was significantly higher than both elective EVARs (M=0.18 SD=0.31 N=86) and open repairs (M=0.26 SD=0.24 N=38).

Conclusions: Elective EVAR requires group and save only. Complex EVARs should retain the 4-6 unit cross-match order. The high CTR in ORs can be accounted for by the use of intra-operative cell salvage in this group.

0355: HAPPILY EVAR AFTER? – RETROSPECTIVE ANALYSIS OF LONG-TERM OUTCOMES FOLLOWING ENDOVASCULAR ANEURYSM REPAIR IN SCOTLAND

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